DOCUMENT RESUME

ED 107 257 IR 001 997

AUTHOR Gordon, Ruby D.
TITLE The Effects of Video Recording Experience Upon the Communication Behavior Skill of Empathy and Dogmatism in Sophomore Community College Nursing Students.
PUB DATE Dec 74
NOTE 42p.

EDRS PRICE MF-$0.76 HC-$1.95 PLUS POSTAGE
DESCRIPTORS Behavioral Science Research; *Behavior Change; Behavior Patterns; Changing Attitudes; College Students; *Communication (Thought Transfer); Communication Skills; Community Colleges; *Dogmatism; *Empathy; Nonverbal Communication; Nursing; Oral Expression; Receptive Language; Student Research; *Video Tape Recordings
IDENTIFIERS Arizona; Glendale Community College

ABSTRACT

To determine the effects of videorecording experience on the communication process in community college sophomore nursing students, 20 students were randomly assigned to two groups. One group received 90-minute sessions of videorecording/feedback experience twice weekly for five weeks. The control group was not exposed to the experimental variable. Both groups were pre- and posttested on a Communication Skill Behavior Check List for Empathy and Dogmatism. The experimental group's experience consisted of student construction of communication situations, utilization of the communication process guidelines, observation and increased sensitivity to nonverbal and verbal cues in the communications process, and group discussion of attitudes following replay sessions. Test results showed no significant differences in scores of the experimental group and the control group. (SK)

ED107257

THE EFFECTS OF VIDEO RECORDING EXPERIENCE UPON THE COMMUNICATION BEHAVIOR SKILL OF EMPATHY AND DOGMATISM IN SOPHOMORE COMMUNITY COLLEGE NURSING STUDENTS

by

Ruby D. Gordon, Chairman
Department of Nursing
Glendale Community College
Glendale, Arizona

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

December, 1974

IR 001 997

TABLE OF CONTENTS

		Page
List of Tables		x
Chapter		
1.	Introduction	1
	Statement of Problem	1
	Purpose of the Study	2
	Hypotheses	2
	Assumptions	3
	Definition of Terms	3
	Need for the Study	4
	Limitations of the Study	5
2.	Review of Literature	6
	Empathy	6
	Dogmatism	7
	Video-recording: Health Professions	8
	Video-recording: Non-Health Professions	9
	Summary of Literature Review	11
3.	Methods and Procedures	12
	Population	12
	Sample Selection	12
	Design of the Study	12
	Instrumentation	13
	Treatment Techniques	14
	Data Analysis Plan	15
	Summary of Methods and Procedures	15
4.	Analysis of Results	16
	Presentation of Data	16
	Pre-treatment Results	16
	Post-treatment Results	18
	Data Analysis	20
	Test of the Hypotheses	22
5.	Summary, Conclusions, and Recommendations	24
	Summary	24
	Conclusions	25
	Recommendations	26

Page

References 27

Selected Bibliography 30

Appendixes

A. Communication Skill Behavior Check List 32

B. Guide for Communication Skills 33

C. Interrater Reliability for Behavior Check List Pre-score 35

D. Interrater Reliability for Behavior Check List Postscore 36

E. Dogmatism Scale, Form D 37

LIST OF TABLES

Table		Page
1.	Summary of Ranks and Mann-Whitney U Values on Communication Skill Pre-test	17
2.	Summary of Ranks and Mann-Whitney U Values on Dogmatism Scale Pre-test	18
3.	Summary Ranks and Mann-Whitney U Values on Communication Skill Post-test	19
4.	Summary of Ranks and Mann-Whitney U Values on Dogmatism Scale Post-test	20

CHAPTER I

INTRODUCTION

The primary objective of the National Commission for the Study of Nursing and Nursing Education was to explore how to improve the delivery of health care to the American people through analysis and improvement of nursing and nursing education (23:173). The Commission believes that community college associate degree programs will eventually supply the major percentage of nurse practitioners. Opportunities in nursing were viewed in terms of interdisciplinary approaches and cooperative study to determine current data, emerging directions and needed changes. However, a major gap exists in translating useful nursing research findings into nursing education (1:252)(2:44).

Statement of Problem

Abdellah (1:239-252) reviewed 175 nursing research projects which were supported in part by the Division of Nursing, National Institutes of Health, between 1955 and 1968. She concluded there were two priorities involving nursing education, one of which was to explore methodology of incorporating new scientific and technological advances into the nursing curriculum. She further pointed out that nursing is rapidly moving toward clinical specialization but few nursing education programs have reflected ways to meet the new demands in their curricula.

The field of audiovisual technology has opened new vistas to faculty to enhance student learning experiences and provide the opportunity to combine multiple techniques in a variety of ways. Nurse educators

have shown much interest in using multimedia approaches in teaching. Many of these permit self-viewing, immediate feed-back, and an opportunity to deal with sensitive situations that otherwise would not be possible in a nursing clinical setting.

Purpose of the Study

The purpose of this study was to determine the effect of Video-recording Experiences upon the communication process in community college sophomore nursing students. One central concept permeating all nursing curricula is that of an effective communication process. It is possible to measure segments of the communication process through selected skills. Nursing as a helping relationship is dependent upon observation, communication, and problem-solving. This study will focus upon a technological approach to student participation in the communication process.

Research Questions

Question 1: Is there a significant difference between the scores on a Communication Skill Behavior Check List for Empathy in community college sophomore nursing students who participate in a Video-recording Experience as compared to community college sophomore nursing students who do not participate in the Video-recording Experience?

Question 2: Is there a significant difference between the scores on a measure of dogmatism in community college sophomore nursing students who participate in a Video-recording Experience as compared to community college sophomore nursing students who do not participate in a Video-recording Experience?

Assumptions

Assumptions in the study which will be required for adequate interpretation of the data are that the nursing students will respond honestly and accurately to the instruments in the study. Further, it is assumed that the necessity for sampling selection to be deliberate will result in a sample representative of community college sophomore nursing students.

Definition of Terms

Cognitive: The known or perceived.

Communication: Persons sharing in attitudes and feelings of others by giving and receiving symbolic messages (31:84).

Communication Skill Behavior Check List: Likert rating scale form designed to facilitate observation of empathy as a skill involving interpersonal relations (6).

Dogmatism Scale: An instrument developed to measure individual differences in open and closed belief systems (29:96).

Empathy: Respecting the other person's position (thoughts, feelings, values, etc.) by being able to convey to the other person that he is being received and understood (6).

Feedback: Information to the learner about his performance which focuses upon specific skills (18:70). Output from a system which is returned as input to control future output (10:34).

Group, Control: Sophomore nursing students enrolled in a nursing clinical laboratory section at a community college who will not be treated according to the experimental variable.

Group, Experimental: Sophomore nursing students enrolled in a nursing clinical laboratory section at a community college who will be treated according to the experimental variable.

Paraphrasing: Restating what another person has said, using one's own words (31:99).

Technology: Systematic application of scientific or other organized knowledge to practical tasks (16:12).

Video-recording Experience: Video-recording of role-playing situations in the communication process between a pair of students which is then replayed for student/teacher discussion. Also, the experimental variable.

Need for the Study

Major areas covered in nursing studies include such topics as the measuring of attitudes of applicants to nursing programs, academic success in relation to student characteristics, student perceptions of patient needs, methods for evaluating nursing education cost, and other wide-range topics. In a 30-year review of research studies and practices in nursing education, Taylor and others (33:56) concluded that research is needed in non-intellectual areas and in the "non-intelligent intellectual areas." Examples of these areas include creativity, leadership skills, communication skills, and interpersonal relations. In a similar summary, Moyer (26:3) states that the general nursing curriculum does not adequately prepare nurses to respond in an understanding or empathic way to patients.

In the Oakland study, funded by the W. K. Kellogg Foundation, Fiorentino and workers (13:66) found that employers of community college nurse graduates indicated these graduates were lacking in ability with communication skills. Incorporating learning experiences into nursing curricula can be done by videorecording and replay of student participation in the communication process. This has the potential of allowing students to view their own communication behavior with its influence upon others. A search of the literature does not reveal studies which demonstrate the effectiveness of this specific approach in community college nursing education.

Limitations of the Study

The researcher was not able to take large samples because of the institutional scheduling format and influential policies on teacher-student ratio imposed by accrediting bodies. Deliberate sequential selection was the sampling method of choice. Some authorities argue for a large sample and state that the crucial element is the appropriate statistical tool for analysis of the data (4:276). However, Fox (14:346) contends that the critical aspect of sampling is representativeness rather than sample size. This study was limited to a single class of sophomore nursing students in one community college and under the direction of one instructor. Statistical analysis of the data was limited to those techniques suited to small samples.

CHAPTER II

REVIEW OF LITERATURE

Taylor and his colleagues (33:91) conducted an evaluation of research findings covering a 30-year period. In their conclusion they state that research is needed in non-intellectual areas such as communication skills, leadership skills, and interpersonal relations. Nurses are given symbolic representation by all health team members as well as the public as persons who serve in a helping role with inherent skills of communication, leadership, and interpersonal relations. One pertinent question raised by these researchers related to the extent in which nursing education programs foster or inhibit maturity in students. They recommended consideration be given in future research to determining the success and satisfaction in nursing in measures of personality maturity and mental health.

There is very little evidence in the research literature indicating that nurse preparation programs include experiences specifically designed to promote adequate interpersonal skills (26:3). The assumption seems inherent that nursing students will acquire interpersonal skills as an integral part of their clinical and curricular experiences. Moyer (26) found no studies which attempted to investigate the potential of group procedures as means of influencing the interpersonal skills of nurses. He concluded that empathic communication must be acquired and furthermore that nursing educators should recognize the need for teaching of empathic ability to student nurses.

Greif and Hogan (17:280-284) reviewed several studies supporting the idea that empathy is an important aspect of interpersonal behavior.

The concept of empathy as sensitivity to the needs and values of others is considered to be a major element of interpersonal behavior. Saltmarch (30:375-377) found that regardless of orientation, the therapeutic process is positively correlated with the condition of empathy. Burke (6) identified three basic communication skills involving interpersonal relations. One of these focuses upon the empathic skills demonstrated by the listener (the helping person) in both a verbal and non-verbal context.

Dogmatism

The Dogmatism Scale, Form D, measures subject receptivity to new ideas, their degree of open-mindedness, and their authoritarian attitude (29:71-80). High scorers are thought to be dogmatic, close-minded, and unreceptive to new ideas. Burke (5:863-868) studied social perception as a function of dogmatism and ratings of subjects' interpersonal sensitivity. It is reported that the degree to which a person is perceived as being empathic and positive in his regard for others is a function of his level of dogmatism.

Kell; (21) points out that discrepancies are evident in the literature reporting findings between dogmatism scores and level of communication. He found that systematic training in communication skills for counseling students enable these students to make significant gains in writing helpful responses to client problems. Also these students made significant gains in terms of responses in a simulated counseling situation. However, the mean score was quite low representing performances inadequate to achieve positive client outcomes. No research studies can be found would relate dogmatism to level of communication in student nurses.

VIDEO-RECORDING

Review of the literature reveals no research studies to demonstrate effectiveness of video-recording experience as a facilitator in the communication process in the learning atmosphere of student nurses. Muecke (27:200-208) has used videotape recordings to identify types, patterns, and inconsistencies of patient behaviors for supervisor learning purposes. Accordingly these have increased self-awareness and increased understanding of the communication processes as well as increasing observation and interpretation skills.

The behaviors necessary to develop special abilities and capabilities for problem-solving are thought to be more important than facts and generalizations (10:4). The challenge of helping students acquire more capabilities faces nursing education with the need to create conditions which facilitate student behavior change. Video-recording is a growing instructional strategy which allows the student to see himself as others see him and provides a powerful tool in developing communication skills and interpersonal relationships.

Utilization of video-recording to develop communication skills is now being used in physician education to allow translation of insight and knowledges into a modus operandi for the physician (3:10) (5). Inclusion of communication skills as part of the curricula in medical schools is directed primarily at developing a humanistic attitude into the doctor-patient relationship in place of the authoritarian attitude prevalent in the past. Communication skill training is thought to aid the physician to be of higher quality as a fellow human being. However, no research studies can be found to support or refute the value of this approach.

Thirty occupational therapy students at Colorado State University were exposed to a 12-hour experience focused upon interpersonal and communication skills within a one-week period (9:1027-29). A specific behavior change goal was decided by each participant who found at the workshop conclusion that the experience was valuable for working effectively with groups. The final question raised, however, related to a need for further research to determine transferability to the work area of the occupational therapist.

Video-recording: Non-health Professions

Research findings on videotape utilization within the disciplines of teacher education, counselor education, psychological therapy, business training, and speech education were reviewed by Clift (7:18). He concluded that it is necessary to determine whether or not the task involved can be accomplished by other means than videotape replay. There are several considerations which tend to support the use of other media for feedback. These considerations include:

1) Other methods of feedback as superior to self-viewing,
2) The emotional dangers inherent in self-viewing by some individuals,
3) Excess time that must be devoted to the taping-replay process.

After determining suitability of the videotape approach and behavioral objectives, Clift (7:19), further important considerations are:

1) Structuring the experience and convincing the participants that behavioral change from the structure is valuable,
2) Allowing the participants to operate the cameras and other equipment in order to become familiar with the hardware,
3) External factors such as the time element should not determine length of playback, and immediate replay,
4) During playback, attention should be directed toward behaviors felt important by the practitioner.

Videotape feedback was employed in sensitivity training at the School of Education of East Texas State University (12:5233). This modality was found to be effective in producing changes in some areas of self-concept and self-actualization. The videotape replays, however, were observed to decrease in use and to become less effective as a tool for presenting visual feedback when sessions were left to participants discretion. The suggested reason for this is that increased involvement on the part of participants develops group adhesion.

Video-recording has also been used as a training methodology in microteaching. Meier (24:145) believes this methodology is most likely based on reinforcement learning theories. This suggests that a person's behavior can be changed by giving him some kind of reward or positive reinforcement when he behaves in the desired manner. The simple rule that behavior is influenced by its consequences provides an impetus to further study of video-recording experiences in this regard.

Video-recording simulation techniques for developing the communication process have been used extensively in the counseling arena by Delaney (8), Eisenberg and Delaney (11), Frankel (15), Ivey (19), and Kelley (20). Mezzano (25:64-65) comments that in addition to the importance of communication skills to counseling effectivenss, there is evidence suggesting that open-mindedness, or the lack of dogmatism, is also related to counselor effectiveness. This suggests there are other variables than video-recording, simulation, and communication skills in the effectiveness of any person in the helping role. There are numerous examples in the literature of application and practice of video-recording as a teaching tool but no evidence of a theoretical foundation.

Summary of Literature Review

Evidence was not found in the literature to indicate that research on the influence of video-recording of the communication process had been accomplished using student nurses as subjects. Studies were not found which relate specifically to the concepts of empathy and dogmatism as being influenced either by the innovative techniques of video-recording of student nurses. Related areas such as medical education and occupational therapy education, are minimally influenced but do not report actual research. On the other hand, teaching, counseling, business training, and speech education have used this approach extensively. Some studies support effectively derived outcomes and other studies do not support effectivenss.

It seems evident from the literature that several variables are involved in the communication process in the video-recording setting. These include characteristics of the student, the time element in recording/replay, and the complexity of the equipment. Objectives and structured experiences appear necessary to any effectivenss that might be derived from videorecording. No research efforts point out a relationship with use of any technological media as influencing empathy and dogmatism.

CHAPTER III

METHODS AND PROCEDURES

The purpose of this study and its theoretical framework are presented in Chapter I. Chapter II contains a review of the literature relative to the problem. This chapter contains descriptions of the population, sampling method, design of the study, instrumentation, treatment techniques, and data analysis plan.

POPULATION

The population consisted of sophomore nursing students who are presently attending Glendale Community College and enrolled in the nursing curriculum. All nursing courses are required without deviation from a set pattern in order to fulfill curriculum requirements. Because of professional accreditation requirements, student supervision, and agency space limitations, the student laboratory experiences are provided in groups not exceeding ten each. Consequently, sampling cannot be extensive.

SAMPLE SELECTION

The sample consisted of 20 sophomore nursing students divided equally into two groups by virtue of the institutional scheduling format. One group was scheduled in the clinical area on Monday/Wednesday and the other group on Tuesday/Thursday. The Tuesday/Thursday group was determined the experimental group according to a mechanical system described by Borg and Gall (4:380).

Design of the Study

The research design of choice was the non-equivalent control-group design described by Borg and Gall (4:394). Structurally, this is:

Experimental group	0	X	0
Control group	0		0

This quasi-experimental design allowed the researcher to take advantage of an already established, functioning group in a natural setting where a data-collection dimension could be added. According to Fox (14:453), some conclusion can be drawn about the relative effectiveness of treatment.

Eight major sources of internal invalidity are history, maturation, testing, instrumentation, regression, selection, mortality, and interaction of selection and maturation. The non-equivalent control group design controls for six of these sources. It does not explicitly control for regression nor interaction of selection and maturation. Regression is unlikely since the group is not an extreme group from an achievement standpoint. Both the control group and the experimental group are in the same school class level and therefore interaction between selection and maturation is remote.

INSTRUMENTATION

Two instruments were used to collect pre-treatment and post-treatment measures of a communication skill reflecting empathy and openness/closedness of belief systems.

Communication Skill Behavior Check List for Empathy

The Communication Skill Behavior Check List for Empathy is a communication skill instrument developed by three counseling faculty at Bradley University for use in a communication skill laboratory setting. No reports of validity and/or reliability are reported in their study. This instrument (See Appendix A) was used by a panel of three experts to rate communication behavior in a video-recorded role-play situation of

students in both the experimental group and the control group. The panel of experts consisted of two nursing faculty colleagues and one nurse alumni. Interrater reliability with a Pearson product-moment statistic was used to determine the reliability of the observers ratings. This correlational technique only measures the extent to which sets of observer's ratings are linearly related (4:361).

TREATMENT TECHNIQUES

The experimental treatment consisted of one and one-half hour sessions of video-recording/feedback experience twice weekly for five weeks in conjunction with the regularly scheduled laboratory experiences provided as a segment of the nursing curriculum. In other words, the experimental variable consisted of a total of 15-hours exposure to the treatment with the experimental group. A Guide for Communication Skills was used for didactic purposes at initial video-recording. (See Appendix B)

As a base-line, all members of the sample were video-recorded in a role-play situation in a pre and post setting only for rating purposes by the panel of experts. Koch (22:38) points out that complete objective observation can be recorded by the camera whereas note-taking records interpretation of an observation. The experimental group were exposed to the experimental variable whereas the control group was not.

Audiovisual technology combined with role-playing allows students to learn and gain insight into their own attitudes as well as attitudes of others. Most students had no prior experience with the communication process being video-taped and replayed. Objectives for the sessions were to allow:

1) student construction of communication situations,
2) utilization of the communication process guidelines involving attending behavior, open-ended questioning, and minimal encourages to talk,
3) observation and increased sensitivity to non-verbal and verbal cues in the communication process, and
4) group discussion of attitudes toward replay sessions.

DATA ANALYSIS PLAN

The two instruments used to collect data resulted in pre-treatment and post-treatment scores as well as three ratings on the behavior check list. The pre-treatment scores and post-treatment scores were analyzed using the Mann-Whitney U Test to determine whether the scores were significantly different as a result of the experimental treatment. The behavior check list ratings were correlated using the Pearson product moment correlation to determine interrater reliability. Levels of significance were set at .05 as recommended by Borg and Gall (4:286-287).

Summary of Methods and Procedures

One clinical laboratory group of sophomore nursing students were treated with Video-recording Experience and one clinical laboratory group was used as a control. The total sample was pre-tested and post-tested. The experimental group received a total of 15-hours exposure to the experimental variable. Scores from the Communication Skill Check List and the Dogmatism Scale were analyzed using the Mann-Whitney U Test.

CHAPTER IV

ANALYSIS OF RESULTS

Data collected using the two instruments for measuring dogmatic belief systems and communication skill behavior were used to test the two hypotheses which were presented in Chapter I. A description of the analysis and results are presented in this chapter. Test of the hypotheses follows the analysis and results.

PRESENTATION OF DATA

Pre-treatment Results

Using a Pearson product moment correlation on rater scores from the communication skill behavior, correlation coefficients were found to be .73 between Rater #1 and Rater #2, .36 between Rater #1 and Rater #3, and .72 between Rater #2 and Rater #3. Actual rater scores and computational data on pre-treatment scores may be found in Appendix C. Interrater reliability, using Pearson product moment correlation method, appear graphically as:

Rater	#1	#2
#2	.73	---
#3	.36	.72

Sample mean scores derived from the communication skill behavior instrument were mathmatically manipulated with the Mann-Whitney U Test. The resulting values of $U = 69$ and $U^1 = 31$ are presented in Table 1. These scores were verified by applying the transformation formula (32:120):

$$U = N_1 N_2 - U^1$$

Mann-Whitney U Formula is as follows:

$$U = N_1 N_2 + \frac{N_1 (N_1 + 1)}{2} - R_1 \qquad U^1 = N_1 N_2 + \frac{N_2 (N_2 + 1)}{2} - R_2$$

Table 1.

Summary of Ranks and Mann-Whitney U Values on Communication Skill Pre-test

Control Group (N_1)		Experimental Group (N_2)	
Score	Rank	Score	Rank
9.67	1	15.66	4
10.66	2	15.99	5
15.33	3	18.99	10
18.00	6.5	19.33	11
18.00	6.5	19.34	12
18.34	8	20.33	13
18.65	9	20.66	14
21.33	15.5	22.67	17
21.33	15.5	23.00	18
23.66	19	24.33	20
R_1 =	86.0	R_2 =	124.0

U = 69

U^1 = 31

Ordinal data of pre-test scores collected from the sample on dogmatism were ranked jointly according to the Mann-Whitney U formula. These scores were then separated into the control group and experimental group as shown in Table 2. The observed value for U = 34.5 and the value for U^1 = 65.5. The transformation formula for verification was then utilized. The data on pre-test scores from the Dogmatism Scale are presented in Table 2. There are several purposes for using a Mann-Whitney U Test. In this study, the purpose is to determine whether a difference exists between two methods applied to members of an experimental group and a control group.

Table 2.

Summary of Ranks and Mann-Whitney U Values on Dogmatism Scale Pre-test

Control Group (N_1)		Experimental Group (N_2)	
Score	Rank	Score	Rank
128	2	111	1
159	8	135	3
159	8	136	4
167	10	146	5
170	11	153	6
185	13	159	8
192	14	174	12
205	15.5	205	15.5
223	19	215	17
230	20	218	18
R_1 =	120.5	R_2	89.5

U = 34.5

U1 = 65.5

Post-treatment Results

The Communication Skill Behavior post-test rated scores were subjected to interrater reliability scrutiny using Pearson product moment correlation. A table of actual rater values appears in Appendix D. Graphically presented, the correlations between raters appear thus:

Rater	#1	#2
#2	.82	--
#3	.82	.32

Post-test mean scores on performance from the Communication Skill Behavior ratings were combined for ranking then separated into the control and experimental groups as shown in Table 3. The Mann-Whitney U Test was utilized to determine whether significant change had occurred as a result of the experimental variable. The value of U was found to be 47 and U^1 as 53. These findings were checked and found to be true by applying the transformation formula (32:120).

Table 3.
Summary Ranks and Mann-Whitney U Values on Communication Skill Post-test

Control Group (N_1)		Experimental Group (N_2)	
Score	Rank	Score	Rank
19.66	1	22.00	3
21.68	2	23.33	4
24.33	5.5	24.99	7
24.33	5.5	25.33	8
26.66	10	25.99	9
28.01	14	27.34	11.5
28.01	14	27.34	11.5
28.66	17	28.01	14
29.67	19	28.35	16
30.00	20	29.01	18
	R_1 = 108.0		R_2 = 102.0

U = 47

U^1 = 53

Ranks were established for the total sample of scores derived from the Dogmatism scale. These rank scores were then totaled and calculated according to the Mann-Whitney U formula for small groups. Table 4 reveals the value of U = 50 and the value of U_1 = 50. These values were verified by applying the transformation formula.

Table 4.

Summary of Ranks and Mann-Whitney U Values on Dogmatism Scale Post-test

Control Group (N_1)		Experimental Group (N_2)	
Score	Rank	Score	Rank
117	1	132	2.5
132	2.5	134	4
141	5	144	6
160	8	156	7
163	9.5	163	9.5
167	12	166	11
174	14	171	13
184	16	178	15
200	18	193	17
211	19	228	20
R_1 =	105.0	R_2 =	105.0

U = 50

U^1 = 50

DATA ANALYSIS

Pre-test and post-test data from two instruments were analyzed statistically by use of the Mann-Whitney U Test and application of the transformation formula to verify the U values. The two instruments used to collect pre-treatment and post-treatment data were the Communication Skill Behavior Check List and the Rokeach Dogmatism Scale. Data on the pre-test and post-test ranks and scores are presented in Tables 1, 2, 3, and 4. See Appendix E for Rokeach Dogmatism Scale.

Ratings on the Communication Skill Behavior Check List obtained from three raters who observed subjects in the sample as pre-test and post-test data base-line were submitted to interrater reliability. Pearson product moment correlation as pre-tests between Raters #1 and #2 was .73 and between Raters #2 and #3 was .72. Both these being considered to represent a high degree correlation. However, Pearson product moment correlation on pre-tests between Raters #1 and #3 was .36, which is considered to be of only moderate degree. The post-test correlations of .82 between both Raters #1 and #2 as well as #1 and #3 are representative of a high degree of correlation. The correlation between Rater #2 and #3 was .32 which is considered in the lower limits of a moderate degree.

Results from the Interrater Reliability using Pearson product moment correlation for the Communication Skill Behavior Check List are as follows:

	Pre-test	Post-test
Raters #1 and #2	.73	.82
Raters #1 and #3	.36	.82
Raters #2 and #3	.72	.32

Control Group and Experimental Group performance as rated by a panel of expert raters using the Communication Skill Behavior Check List resulted in mean scores for each subject which were analyzed by a Mann-Whitney U Test:

	Pre-test	Post-test
U value	69	47
U^1 value	31	53

These scores are not significant at the .05 level of significance as listed in the Table of Critical Values of U for the Mann-Whitney U Test (32:276).

The Mann-Whitney U Test values resulting from the Dogmatism Scale scores on both the Control Group and the Experimental Group were:

	Pre-test	Post-test
U value	34.5	50
U^1 value	65.5	50

These scoes were not within the .05 level of significance when compared to the Table of Critical Values of U for the Mann-Whitney U Test (32:276).

TEST OF THE RESEARCH QUESTIONS

Question 1: Is there a significant difference between the scores on a Communication Skill Behavior Check List in community college sophomore nursing students who participate in a Video-recording Experience as compared to community college sophomore nursing students who do not participate in the Video-recording Experience?

Observed Mann-Whitney U values on the Communication Skill Behavior Check List are not within the .05 level of significance as demonstrated in the Table of Critical Values of U for the Mann-Whitney U Test (32:276). The experimental group was not significantly different from the control group with regard to the variable.

Question 2: Is there a significant difference between the scores on a measure of dogmatism in community college sophomore nursing students who participate in a Video-recording Experience as compared to community college sophomore nursing students who do not participate in a Video-recording Experience?

The Table of Critical Values of U for the Mann-Whitney U Test (32: 276) confirmed that the observed U values on the Dogmatism Scale are not

within the .05 level of significance. The experimental group was not significantly different from the control group with regard to the variable.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Nursing educators have been lacking in attention to exploring and incorporating changing technological concepts into their curricula in preparing nurses for future trends toward clinical specialization. This study involves determining the effectivenss of video-recording/replay opportunities for an experimental group of nursing students as one method of approaching the teaching/learning process with communication skills. Two research questions were tested.

Question 1: Is there a significant difference between the scores on a Communication Skill Behavior Check List for Empathy in community college sophomore nursing students who participate in a Video-recording Experience as compared to community college sophomore nursing students who do not participate in the Video-recording Experience?

Question 2: Is there a significant difference between the scores on a measure of dogmatism in community college sophomore nursing students who participate in a Video-recording Experience as compared to community college sophomore nursing students who do not participate in a Video-recording Experience?

A sample of 20 sophomore nursing students equally divided into two intact clinical groups were determined by a mechanical system of sampling as the control group and the experimental group. The research design of choice was a non-equivalent control-group design controlling for six of eight sources of internal invalidity.

Two instruments, the Communication Skill Behavior Check List for Empathy and the Dogmatism Scale D Form, Were chosen. These were administered to the total sample as pre-tests and post-tests. The experimental group was treated with a series of Video-recording Experiences, the cariable, totaling 15-hours while the control group was not treated.

Four sets of scores were obtained for statistical analysis. This was accomplished with the Mann-Whitney U Test to determine variation at the .05 level of significance. Pearson product moment coefficient correlations were utilized to determine interrater reliability between check list ratings by three raters on the Communication Skill Behavior Check List. Testing of Question 1 and Question 2 revealed that there was no significant difference between the experimental group and the control group at the .05 level of significance.

Conclusions

In view of the findings, three conclusions were evident.

1) The Video-recording experience in this study did not reveal it to be an effective method for altering the communication skill of empathy nor lower the dogmatism scores among community college sophomore nursing students.

2) Video-recording experience as an instructional strategy has no previous research foundation in the communication process with community college nursing students.

3) There have been some related fields to nursing, especially counseling, where video-recording experiences have demonstrated effectiveness in persons working in helping roles.

Recommendations

Three recommendations are suggested.

1) Design a second experimental situation to evaluate the effectiveness of video-recording by maintaining the experimental variable for a longer period of time.

2) Develop a study not using video-recording experience but with instruments more sensitive to the measurement of empathy and its relationship to the communication process.

3) Utilize the collection of video-recordings from the present study for demonstration and future groups of nursing students as participants in discussion groups as a classroom strategy.

REFERENCES

1. Abdellah, Faye C. "Overview of Nursing Research 1955-1968, Part III." Nursing Research. 19:3:239, 1970.

2. Abdellah, Faye C. "Problems, Issues, Challenges of Nursing Research." The Canadian Nurse.67:5:44-46, 1971.

3. Authier, Jerry "Using Video to Develop Communication Skills." Biomedical Communications. 2:4:10,38-43, 1974.

4. Borg, Walter R., and Gall, Meredith D. Educational Research: An Introduction. New York: David McKay Company, Inc., 1971.

5. Burke, W. W. "Social Perception as a Function of Dogmatism." Perceptual and Motor Skills. 23:863-868, 1966.

6. Burke, Margaret J. Communication Skills Training. Bradley University, College of Education, Peoria, Illinois, 25 pages, April, 1973. (Microfiche; ERIC; ED 075 749).

7. Clift, Charles. Videotape: A Synthesis of Research in the Use of Audio-visual Replay for Instructional Development. Paper presented at the Annual Meeting of the Speech Communications Association, New York City, November 8-11, 1973, 37 pages. (Microfiche; ERIC; ED 085 785).

8. Delaney, Daniel J. "Simulation Techniques in Counselor Education." Counselor Education and Supervision. 8:3:183-188, 1969.

9. Delworth, Ursula M. "Interpersonal Skill Development for Occupational Therapy Students." The American Journal of Occupational Therapy. 26: 1027-1029, 1972.

10. deTornyay, Rheba. "Instructional Technology and Nursing Education." The Journal of Nursing Education. 9:2:3-8,34-35, 1970.

11. Eisenberg, Sheldon, and Delaney, Daniel J. "Using Video Simulation of Counseling for Training Counselors." Journal of Counseling Psychology. 17:1:15-19, 1970.

12. Elbert, Weldon Eugene. "Changes in Self-Concept, Self-Actualization, and Interpersonal Relations as a Result of Video Feedback in Sensitivity Training." Dissertation Abstracts International. 30A:5233, 1970.

13. Fiorentino, Sharon J.; Stewart, Sharon J. W.; Walters, Carol J.; and Geitgey, Doris A. "What is Expected of the Associate Degree Nurse?" Junior College Journal. 39:7:62-68, 1969.

14. Fox, David J. The Research Process in Education. New York: Holt, Rinehart and Winston, Inc., 1969.

15. Frankel, Mark. "Effects of Videotape Modeling and Self-Confrontation Techniques on Microcounseling Behavior.: Journal of Counseling Psychology. 18:5:465-471, 1971.

16. Galbraith, J. K. The New Industrial State. Boston: Houghton-Mifflin, 1967, pages 12-13.

17. Greif, Esther Blank, and Hogan, Robert. "The Theory and Measurement of Empathy." Journal of Counseling Psychology. 20:3:280-284, 1973.

18. Hutchins, C. L.; Dunning, Barbara; Madsen, Marilyn; and Rainey, Sylvia. Minicourses Work. Berkeley: Far West Laboratory for Educational Research and Development, September, 1971.

19. Ivey, Allen E. Microcounseling: Innovations in Interviewing Training. Springfield: Charles C. Thomas, Publisher, 1971.

20. Kelley, Jan D. "Reinforcement in Microcounseling." Journal of Counseling Psychology. 18:3:268-272, 1971.

21. Kelly, Eugene W., Jr. Increasing Communication Skills in a Traditional Master's Degree Program, 14 pages, September, 1972. (Microfiche; ERIC; 068 871).

22. Koch, Harriet B. "Television in Nursing Education." The Journal of Nursing Education. 7:2:37-43, 1968.

23. Lysaught, Jerome P. "From Abstract Into Action." Nursing Outlook. 20:3:173-179, 1972.

24. Meier, John H. "Rationale for and Application of Microteaching to Improve Teaching." The Journal of Teacher Education. 19:145-156, 1968.

25. Mezzano, J. "A Note on Dogmatism and Counselor Effectiveness." Counselor Education and Supervision. 9:64-65, 1969.

26. Moyer, Phillip Clark. An Investigation of the Effects of Leader Verbal Reinforcement of Understanding Responses in Groups of Student Nurses. Doctoral Dissertation, Arizona State University, 1968.

27. Muecke, M. A. "Videotape Recordings: A Tool for Psychiatric Clinical Supervision." Perspective in Psychiatric Care. 8:5:200-208, 1970.

28. Ramey, James W. "Teaching Medical Students by Videotape Simulation." Journal of Medical Education. 43:1:55-59, 1968.

29. Rokeach, Milton. The Open and Closed Mind. New York: Basic Books, 1960.

30. Saltmarsh, Robert E. "Development of Empathic Interview Skills Through Programmed Instruction." Journal of Counseling Psychology. 20:4:375-377, 1973.

31. Schmuck, Richard A. and Schmuck, Patricia A. Group Processes in the Classroom. Dubuque: William C. Brown Company Publishers, 1971.

32. Siegal, Sidney. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw Hill Book Company, 1956.

33. Taylor, Calvin W., and others. Selection and Recruitment of Nurses and Nursing Students: A Review of Research Studies and Practices. Salt Lake City: University of Utah Press, 1963.

34. Vacchiano, Ralph B.; Strauss, Paul S.; and Hochman, Leonard. "The Open and Closed Mind: A Review of Dogmatism." Psychological Bulletin. 71:4:261-273, 1969.

SELECTED BIBLIOGRAPHY

Allen, Moyra. The Development of Clinical Nursing Situations on Videotape for Use via Closed-Circuit Television in the Teaching of Nursing. Final Report. McGill University, Montreal, Quebec, Canada, 56 pages. (Microfiche; ERIC: ED 074 286).

Berger, Milton M., Editor. Videotechniques in Psychiatric Training and Treatment. New York: Brunner-Mazel Publisher, 1970.

Betz, R. and Osborne, L. "A Further Note on Dogmatism." Counselor Education and Supervision. 10:194-195, 1971.

Bierschenk, Bernhard. Self-Confrontation via Closed-Circuit Television in Teacher Training: Results, Implications and Recommendations. School of Education, Malmo (Sweden), Department of Educational and Psychological Research, September, 1972, 101 pages.

Borgers, Sherry B. and Ward, G. Robert. "Differences in the Needs of Low Dogmatic and High Dogmatic Prospective Teachers." Educational Leadership. 31:8:697-699, 1974.

Ellis, Elmer C., and Stephens, Howard G. "Video Tape: A Tool for Student Teaching." Educational Television. 2:9:19-26, 1970.

Elsenrath, Dennis E., and Coker, David L. "Microteaching Interviewing Skills." Journal of Counseling Psychology. 19:2:150-155, 1972.

Gage, N. L. "An Analytical Approach to Research on Instructional Methods." Phi Delta Kappan. 49:10:601-606, 1968.

Higgins, William H.; Ivey, Allen E.; and Uhlemann, Max R. "Media Therapy: A Programmed Approach to Teaching Behavioral Skills." Journal of Counseling Psychology. 17:1:20-26, 1970.

Juan, Isabel R.; Gagan, Jean F.; and Haley, Harold B. "Dogmatism and Attitude differences in Medical Students." The Journal of Medical Education. 44:8:698-702,1969.

Kagan, Norman; Drathwohl, David R.; and Miller, Ralph. "Stimulated Recall in Therapy Using Video Tape: A Case Study." Journal of Counseling Psychology. 10:3:237-243, 1963.

Kaminski, Mitchell V., Jr. "Recent Developments in Video Teaching Techniques at TUSAMEDTC." Audiovisual Instruction. 16:8:42-44, 1971.

Khan, S. B., and Weiss, Joel. "The Teaching of Affective Responses." In Second Handbook of Research on Teaching, Edited by Robert M. W. Travers. Chicago: Rand McNally and Company, 1973, pages 759-804.

Malo-Juan, Dolores "Seeing Is Believing." Nursing Outlook. 21:9:583-585,1973.

McDonald, Frederick J. A Behavior Modification View of Video Playback: Microteaching. Paper presented at American Educational Research Association, New Orleans, Louisana, 1973, Abstract. (Microfiche; ERIC; 076 561).

McKay, Rose P. and Harrison, Omeera Anne. A Comparison of Self-Critique Using Video Tapes and Verbal Critique by the Instructor in Learning Psychomotor Skills. Final Report. Denver Medical Center, University of Colorado, July, 1972, 100 pages. (Microfiche; ERIC; ED 066 927).

Metzner, Richard J., and Bittker, Thomas E. "Videotape Production by Medical Educators: Some Practical Considerations." The Journal of Medical Education. 48:8:743-751, 1973.

Rezler, Agnes G., and Alexander S. Anderson. "Focused and Unfocused Feedback and Self-Perception." The Journal of Educational Research. 65: 2:61-64, 1971.

Rossiter, Charles M. and Luecke, John R. "The Use of Videotape Recordings in Teaching Interpersonal Communication." The Speech Teacher. 23: 1:59-60, 1974.

Schuelke, L. D. A New Model for Improving the Communication of Learning in Communication. Paper presented at the International Communication Association, Atlanta, April 19-22, 1972. (Microfiche; ERIC: ED 066 774), 13 pages.

Walz, Garry R., and Johnston, Joseph A. "Counselors Look at Themselves on Video Tape." Journal of Counseling Psychology. 10:3:232-236, 1963.

Worledge, Clara S. "Teaching Nursing by Television." The Journal of Nursing Education. 5:2:33-37, 1966.

APPENDIXES

APPENDIX A

COMMUNICATION SKILL TRAINING

BEHAVIOR CHECK LIST*

SKILL: Empathy

Name_____ Date of Observation_____

	Not At All		Some		To a Great Extent
Extent that the listener paraphrases verbal content	/	/	/	/	/
Extent that the paraphrase appears to be accurate	/	/	/	/	/
Extent that listener verbally reflects the present affect of the speaker	/	/	/	/	/
Extent that listener's reflection of affective aspects appears to be accurate	/	/	/	/	/
Extent that speaker indicates (verbally or non-verbally) that he has understood	/	/	/	/	/
Extent that the listener appears to care about speaker	/	/	/	/	/
	1	2	3	4	5

*Adapted from: Burke, Margaret J. Communication Skills Training, Bradley University, College of Education, Peoria Illinois, 25 pages. (Microfiche; ERIC; ED 075 749)

APPENDIX B

GUIDE FOR COMMUNICATION SKILLS

I. Attending Behavior

A. Good attending behavior demonstrates to the helper that you respect him as a person and are interested in what he says.

B. Primary behaviors of the helper:

1. Physically relaxed, natural posture facilitates ease of listening and communicating.

2. Initiate and maintain eye contact, then vary the use of.

3. Use of comments that follow leads from the helper.

II. Open Invitation to talk

A. The helpee comes to the helper with something that he feels is a problem. The intial task of the helper is to stay out of the helpee's way so as to find out how he sees his situation.

B. Provide limited structure to facilitate the helpee's expression of his problem.

Examples of questions:

Open: Could you tell me a little bit about yourself?

How did you feel about that?

Closed: Are you single?

Do you get along with your par

C. Questions should be designed to help the helpee clarify his own problems rather than provide information for the nurse.

III. Minimal Encouragements to Talk

A. Providing, along with attending behavior and open questions, slight or minimal encouragements to continue talking, and maintaining focus May be thought of as reinforcement of verbal behavior.

B. Should follow directly from helpee's statement,

D. Examples:

1. "Oh," "So," "Then," "And!"
2. The repetition of one or two key words.
3. Tell me more.
4. How did you feel about that?
5. Give me an example.
6. What does that mean to you?
7. 'Ummmmmm

Adopted from: Ivey, Allen E. Microcounseling: Innovations in Interviewint Training. Springfield: Charles C. Thomas, Publisher, 1971

APPENDIX C

INTERRATER RELIABILITY

Behavior Check List: Empathy
Pre Scores for Sample

S.S.	$R_1(x)$	$R_2(y)$	$R_1(x)$	$R_3(z)$	$R_2(y)$	$R_3(z)$
C-1	3.33	3.33	3.33	3.50	3.33	3.50
C-2	2.00	1.00	2.00	1.50	1.00	1.50
C-3	3.33	2.50	3.33	3.17	2.50	3.17
C-4	2.17	2.33	4.17	3.17	2.33	3.17
C-5	3.50	3.33	3.50	3.33	3.33	3.33
C-6	2.50	3.33	2.50	3.50	3.33	3.50
C-7	2.67	3.17	2.67	3.33	3.17	3.33
C-8	2.00	1.67	2.00	1.67	1.67	1.67
C-9	3.00	2.50	3.00	3.50	2.50	3.50
C-10	3.33	3.50	3.33	3.83	3.50	3.83
E-11	3.67	3.17	3.67	2.83	3.17	2.83
E-12	4.67	4.00	4.67	3.50	4.00	3.50
E-13	4.00	3.67	4.00	3.67	3.67	3.67
E-14	3.50	2.83	3.50	3.33	2.83	3.33
E-15	3.50	4.00	3.50	3.67	4.00	3.67
E-16	4.50	3.83	4.50	3.17	3.83	3.17
E-17	4.00	3.33	4.00	2.00	3.33	2.00
E-18	2.67	1.67	2.67	2.83	1.67	2.83
E-19	3.33	2.00	3.33	2.33	2.00	2.33
E-20	3.00	3.50	3.00	3.83	3.50	3.83
Σx =		64.67		64.67		—
Σx^2 =		219.85		219.85		—
Σxy =		198.48		—		—
s.s. =		20		20		20
Pearson's r =		.73		.36		.72
Σy =		58.66		—		58.66
Σy^2 =		185.61		—		185.61
Σyz =		—		—		188.85
Σz =		—		61.66		61.66
Σz^2 =		—		199.17		199.17
Σxz =		—		202.96		—

APPENDIX D

INTERRATER RELIABILITY

Behavior Check List: Empathy
Post Scores for Sample

S.S.	$R_1(x)$	$R_2(y)$	$R_1(x)$	$R_3(z)$	$R_2(y)$	$R_3(z)$
C-1	4.00	5.00	4.00	4.17	5.00	4.17
C-2	4.83	5.00	4.83	5.00	5.00	5.00
C-3	4.17	4.00	4.17	3.67	4.00	3.67
C-4	5.00	4.83	5.00	4.67	4.83	4.67
C-5	5.00	4.50	5.00	5.00	4.50	5.00
C-6	5.00	5.00	5.00	5.00	5.00	5.00
C-7	4.67	4.67	4.67	5.00	4.67	5.00
C-8	3.33	3.33	3.33	3.17	3.33	3.17
C-9	4.00	3.67	4.00	3.50	3.67	3.50
C-10	3.67	3.50	3.67	3.33	3.50	3.33
E-11	4.00	3.67	4.00	4.00	3.67	4.00
E-12	4.33	4.17	4.33	4.50	4.17	4.50
E-13	5.00	4.50	5.00	5.00	4.50	5.00
E-14	5.00	5.00	5.00	4.50	5.00	4.50
E-15	3.83	4.00	3.83	4.33	4.00	4.33
E-16	3.67	3.67	3.67	3.67	3.67	3.67
E-17	3.83	4.00	3.83	4.67	4.00	4.67
E-18	4.67	4.33	4.67	4.67	4.33	4.67
E-19	4.67	4.83	4.67	4.67	4.83	4.67
E-20	4.33	4.33	4.33	4.67	4.33	4.67

Σx =	87.00	87.00	86.00
Σx^2 =	384.01	384.01	——
Σxy =	378.77	——	——
s.s. =	20	20	20
Pearson's r =	.82	.82	.32
Σy =	86.00	——	——
Σy^2 =	375.60	——	375.60
Σyz =	——	——	446.50
Σz =	——	87.89	107.19
Σz^2 =	——	387.01	913.81
Σxz =	——	384.37	——